Docket No.: 206585US3X

OBLON
SPIVAK
McCLELLAND
MAIER
&
NEUSTADT
P.C.

ATTORNEYS AT LAW

NORMAN F. OBLON
(703) 413-3000
NOBLON@OBLON.COM

ROBERT T. POUS
(703) 413-3000
RPOUS@OBLON.COM

COMMISSIONER FOR PATENTS
ALEXANDRIA, VIRGINIA 22313

RE: Application Serial No.: 09/841,593
Applicants: Akio KORO, et al.
Filing Date: April 25, 2001
For: A BATCH MIXER AND A MIXING ROTOR FOR THE SAME
Group Art Unit: 1723
Examiner: SORKIN, D.

SIR:

Attached hereto for filing are the following papers:

**REQUEST FOR RECONSIDERATION**

Our check in the amount of is attached covering any required fees. In the event any variance exists between the amount enclosed and the Patent Office charges for filing the above-noted documents, including any fees required under 37 C.F.R 1.136 for any necessary Extension of Time to make the filing of the attached documents timely, please charge or credit the difference to our Deposit Account No. 15-0030. Further, if these papers are not considered timely filed, then a petition is hereby made under 37 C.F.R. 1.136 for the necessary extension of time. A duplicate copy of this sheet is enclosed.

Respectfully submitted,

OBLON, SPIVAK, McCLELLAND,
MAIER & NEUSTADT, P.C.

Norman F. Oblon
Registration No. 24,618

Robert T. Pous
Registration No. 29,099

Customer Number
22850
(703) 413-3000 (phone)
(703) 413-2220 (fax)
I:\cfdav\206585.cvr

DOCKET NO: 206585US3X

IN THE UNITED STATES PATENT & TRADEMARK OFFICE

| | | |
|---|---|---|
| IN RE APPLICATION OF | : | |
| AKIO KORO, ET AL. | : | EXAMINER: SORKIN, D. |
| SERIAL NO: 09/841,593 | : | |
| FILED: APRIL 25, 2001 | : | GROUP ART UNIT: 1723 |
| FOR: A BATCH MIXER AND A MIXING ROTOR FOR THE SAME | : | |

REQUEST FOR RECONSIDERATION

COMMISSIONER FOR PATENTS
ALEXANDRIA, VIRGINIA 22313

SIR:

In response to the Office Action dated December 11, 2003, Applicants request the reconsideration of the rejection of Claims 1-3 and 11-13, for the reasons set forth below. Claims 4-10 and 14-20 have been allowed.

As has been previously discussed, the invention is directed to a batch mixer, or a mixing rotor for use in a batch mixer, having improved performance. According to a feature of the invention, a pair of longer blades of the mixing rotor are twisted to cause the material to flow toward a longitudinal middle side of a developed view of the rotor, and include a first longer blade which is linear in the developed view and extends from an edge of one longitudinal end of the mixer rotor toward the longitudinal middle side thereof, as well as a second longer blade which is substantially non-linear in the developed view and extends from an edge of the other longitudinal end of the mixing rotor toward the longitudinal middle side thereof (page 9, lines 9-16). Since the first and second longer blades extend from the edges

of the opposite longitudinal ends of the mixing rotor, they feed material to each other as shown in Figure 2B.

The invention provides improved performance. For example, while a sufficient axial flow 18 of the material to be mixed is created to enhance the degree of mixing by the section 16 of the second longer blade 13 which is a nonlinear blade whose helix angle gradually increases toward the other longitudinal end, a sufficient shearing force is imparted to the material to be mixed to enhance the degree of dispersion by the first longer blade 12 which is a linear blade. Therefore, an appropriate mixing control capable of realizing both sufficient mixing and sufficient dispersion can be executed (p.10, lines 17-25).

Claims 1 and 11 had been rejected, in the Office Action dated January 22, 2003, as being anticipated by the U.S. patent to Lohmann (U.S. patent 4,744,668). In reply, Applicants had amended Claims 1 and 11 to recite that the blades extend from "an edge of" the respective longitudinal ends of the mixing rotor. Applicants had pointed out that the longer blade A of Lohmann and the linear blade B or C or Lohmann do not extend from an edge of one end and the other longitudinal end of the mixing rotor. Instead, the non-linear longer blade extends from the left end (as seen in Figure 12 of Lohmann) whereas the linear longer blades (B and C) do not extend from either edge, but instead begin and end at a mid-portion of the mixing rotor (see response of April 22, 2003, page 5). Subsequently (on June 3, 2003), the rejection based upon Lohmann was withdrawn and Claims 1 and 11 were instead rejected under 35 U.S.C. § 112, first paragraph. Following Applicants' traversal of this rejection (on September 3, 2003), the rejection based upon 35 U.S.C. § 112, first paragraph has been withdrawn in the outstanding Office Action. Instead, the Examiner has again rejected Claims 1 and 11 (as well as Claims 3 and 13) as being anticipated by Lohmann.

Applicants wish to thank Examiner Sorkin for the courtesy of a telephone discussion on February 17, 2004, at which time Applicants inquired as to the basis for the anticipation rejection, in view of the fact that Claims 1 and 11 recite that the blades extend from an edge of the respective ends of the mixing rotor, whereas the blades B and C of Lohmann do not extend from either edge but instead begin and end at a mid-portion of the mixing rotor. According to Applicants' understanding, it was the Examiner's position that the "mixing rotor" in Lohmann is "a selected portion of the rotating structure depicted in Figs. 11 and 12, the selected portion being, for example, the portion from a cross-section corresponding to the left edge of Fig. 12 to a cross-section through the right end point of blade C" (see sentence bridging pages 2-3 of the outstanding Office Action). That is, the Examiner has *arbitrarily* selected a portion of the mixing rotor in Lohmann, which portion is defined by the terminus of the blade, ignoring the fact that the mixing rotor actually continues beyond the terminus of the blade. The Examiner has justified this arbitrary selection in Lohmann because the mixing rotors in the present specification do not include the drive shafts upon which the mixing rotors are mounted. The Examiner evidently asserts that Applicants have arbitrarily defined the claimed "mixing rotor" to be a selected portion (i.e., the part numbered 4 in Fig. 1) which is less than what those skilled in the art would ordinarily understand to be a mixing rotor, in which case he is equally entitled to arbitrarily select a limited portion of the mixing rotor of Lohmann to anticipate the claimed mixing rotor.

Applicants respectfully submit that this interpretation is completely unjustified. Applicants further submit that this interpretation effectively reads limitations out of the claims and is not consistent with even the broadest reasonable interpretation (i.e., plain meaning) of the term "mixing rotor."

**1. The Examiner's interpretation effectively and improperly reads limitations out of the claims.**

The Examiner's interpretation effectively and improperly reads the phrase "edge of" out of the claim. By arbitrarily selecting any desired portion of the mixing rotor of Lohmann to correspond to the claimed mixing rotor, the Examiner is taking the position that, at his option, he can deem a claim which recites a blade which "extends from an edge of one longitudinal end of the mixing rotor" to be anticipated by a reference in which the blade terminus is at a mid-portion of the mixing rotor. In so doing, the Examiner is effectively alleging that the term "edge" can be ignored since the claim is equally anticipated with, or without, this limitation. This is clearly improper.

**2. The Examiner's interpretation is not consistent with even the broadest reasonable interpretation (i.e., plain meaning) of the term "mixing rotor."**

As has previously been explained, the "mixing rotors" described in the specification are the members 4 having a length L and mounted on an (unnumbered) drive shaft (Figure 1). *This nomenclature is consistent with the usage of this term by those skilled in the art.* For example, in U.S. published patent application 2001/0050880 (cited by the Examiner on October 4, 2002), the corresponding parts – not including the drive shafts -- are described as "rotors 5" having a length L (see paragraph 0028). In U.S. patent 4,744,668 (Nortey), the corresponding parts are described as rotors 51 and 52 having a length L and mounted on drive shafts 55 and 56 (column 5, lines 52-55). In each case, the parts identified by the prior art as "rotors" exclude the drive shafts, just as in the present specification.

Thus, the mixing rotors 4 of the present application are not simply arbitrarily selected portions but instead conform to the ordinary and accepted meaning of the term. The Examiner has not correspondingly identified a reasonable basis in the art to arbitrarily

identify only a limited portion of the rotor of Lohmann as being the claimed mixing rotor. Thus there is no justification for interpreting a limited portion of the rotor of Lohmann to correspond to the claimed mixing rotor.

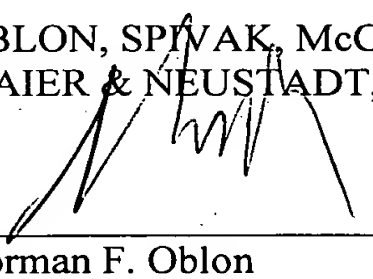
In sum, there is no "broadest reasonable interpretation" by which the Examiner can arbitrarily select only a portion of the rotor of Lohmann to be the claimed mixing rotor. To do so is inconsistent with the ordinary meaning of the term as used by those skilled in the art, and effectively reads a limitation entirely out of the claim. Applicants therefore respectfully submit that Claims 1 and 11, and their dependent Claims 3 and 13, clearly define over this reference.

Concerning the rejection of Claims 2 and 12 under 35 U.S.C. § 103 as being obvious over Lohmann in view of Nortey, it is noted that Nortey was simply cited to teach a specific angle for the blades and provides no teaching for overcoming the shortcomings of Lohmann with respect to the independent claims.

Applicants therefore believe that the present application is in a condition for allowance and respectfully solicit an early Notice of Allowability.

Respectfully submitted,

OBLON, SPIVAK, McCLELLAND,
MAIER & NEUSTADT, P.C.



Norman F. Oblon
Registration No. 24,618
Robert T. Pous
Registration No. 29,099
Attorneys of Record

Customer Number
22850

Tel: (703) 413-3000
Fax: (703) 413 -2220
(OSMMN 08/03)
RTP:smi

I:\ATTY\RTP\206585\206585US-REC.DOC